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APPLICATION NO.	F	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,116		01/14/2004	Karoleen B. Alexander	42635-0200	2947
21611	7590	11/20/2006	•	EXAMINER	
SNELL &			PARSLEY, DAVID J		
600 ANTO SUITE 140		VARD	ART UNIT	PAPER NUMBER	
COSTA MESA, CA 92626				3643	
				DATE MAILED: 11/20/2006	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/757,116 Filing Date: January 14, 2004

Appellant(s): ALEXANDER, KAROLEEN B.

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Albin H. Gess For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9-15-06 appealing from the Office action mailed 2-10-6.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,678,353	Tsao et al.	10-1997
5,396,731	Byrne	3-1995
5,730,773	Farley	3-1998

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4,882,386 Stella 11-1989

4,205,102 Schuurink et al. 5-1980

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over 5,396,731 to Byrne in view of U.S. Patent No. 5,678,353 to Tsao et al.

Referring to claim 1, Byrne discloses a structure for use as a tree well skirt or sidewalk comprising, a base layer – at 16, of rubber and a binder – see for example column 4 lines 53-68 and column 5 lines 1-22, and a wear layer – at 15,30,31, and a binder on top of the base layer – see at part of 15 in figure 8 and columns 4-5. Byrne does not disclose the wear layer is made of EPDM. Tsao et al. does disclose a wear layer – at 1-4 made of EPDM – see for example claim 13 column 10 lines 4-14. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Byrne and add the wear layer made of EPDM of Tsao et al., so as to allow for the device to be durable for outdoor use.

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Claims 2-3, 6-11, 12/10, 12/11, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne as modified by Tsao et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,730,773 to Farley.

Referring to claim 2, Byrne as modified by Tsao et al. does not disclose the base layer is butadiene rubber. Farley does disclose the base layer is butadiene rubber – see for example column 4 lines 28-44. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and add the base layer of butadiene rubber of Farley, so as to allow for the device to be flexible and resilient.

Referring to claim 3, Byrne as modified by Tsao et al. and Farley further discloses the rubber is recycled vehicle tires or industrial rubber – see for example column 4 lines 17-27 of Byrne and column 4 lines 28-44 of Farley.

Referring to claim 6, Byrne as modified by Tsao et al. and Farley further discloses the rubber is in granular form – see for example column 4 lines 17-27 of Byrne and column 4 lines 33-67 of Farley.

Referring to claim 7, Byrne as modified by Tsao et al. and Farley further discloses the rubber granules are in the range of 1.5mm to 6mm – see for example column 4 lines 17-27 of Byrne.

Referring to claim 8, Byrne as modified by Tsao et al. and Farley further discloses the rubber is in the form of peelings or buffings – see for example column 4 lines 17-27 of Byrne.

Referring to claim 9, Byrne as modified by Tsao et al. and Farley further discloses the rubber is in the form of a mixture of granules and peelings and buffings – see for example column 4 lines 17-27 of Byrne.

Referring to claims 10-11, Byrne as modified by Tsao et al. and Farley does not disclose the mixture of granules to peelings or buffings is either 70% granules and 30% peelings or buffings or 50% granules and 50% peelings or buffings. However, these are limitations found through experimentation and it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and Farley and add the mixture of either 50 or 70% buffings and either 30 or 50% peelings or buffings, so as to allow for the device to be of a natural appearance.

Referring to claims 12/10 and 12/11, Byrne as modified by Tsao et al. and Farley further discloses the rubber is recycled vehicle tires or industrial rubber – see for example column 4 lines 17-27 of Byrne and column 4 lines 28-44 of Farley.

Referring to claims 13-14, Byrne as modified by Tsao et al. and Farley does not disclose the base layer is 1 ½ to 3 ½ inches or 2 inches thick. However, these limitations are found through experimentation and it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and Farley and add the base layer being 1 ½ to 3 ½ inches or 2 inches thick, so as to allow for the device to be made of sufficient size to make the device durable for outdoor use.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne as modified by Tsao et al. and Farley as applied to claim 2 above, and further in view of U.S. Patent No. 4,882,386 to Stella.

Referring to claim 4, Byrne as modified by Tsao et al. and Farley does not disclose the binder is isocyanate polyurethane. Stella does disclose the binder is isocyanate polyurethane – see for example column 9 lines 19-26 and column 11 lines 24-30. Therefore it would have been

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obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and Farley and add the binder being isocyanate polyurethane of Stella, so as to allow for the device to be strengthened and thus more durable.

Referring to claim 5, Byrne as modified by Tsao et al., Farley and Stella does not disclose the ratio of binder to rubber is 16% by weight. However, this limitation is found through experimentation and it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al., Farley and Stella and add the ratio of binder to rubber being 16% by weight, so as to allow for the device to be strengthened and thus more durable.

Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne as modified by Tsao et al. as applied to claim 1 above, and further in view of Stella.

Referring to claim 15, the binder is isocyanate polyurethane. Stella does disclose the binder is isocyanate polyurethane – see for example column 9 lines 19-26. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and add the binder being isocyanate polyurethane of Stella, so as to allow for the device to be strengthened and thus more durable.

Referring to claim 16, Byrne as modified by Tsao et al. and Stella does not disclose the ratio of binder to rubber is 20% by weight. However, this limitation is found through experimentation and it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and Stella and add the ratio of binder to rubber being 20% by weight, so as to allow for the device to be strengthened and thus more durable.

Referring to claim 17, Byrne as modified by Tsao et al. and Stella further discloses the rubber is granular – see for example column 4 of Byrne.

Referring to claim 18, Byrne as modified by Tsao et al. and Stella further discloses the rubber granules are in the range of 1.5mm to 6mm – see for example column 4 lines 17-27 of Byrne.

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne as modified by Tsao et al. as applied to claim 1 above, and further in view of U.S. Patent No. 4,205,102 to Schuurink et al.

Referring to claim 19, Byrne as modified by Tsao et al. does not disclose the binder contains aliphatic diisocyanate. Schuurink et al. does disclose the binder contains aliphatic diisocyanate – see for example claim 3. Therefore, it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and add the binder containing aliphatic diisocyanate of Schuurink et al., so as to allow for the device to be strengthened and thus more durable.

Referring to claim 20, Byrne as modified by Tsao et al. and Schuurink et al. further discloses the rubber is granules and the granules are in the range of 1.5mm to 6mm in diameter – see for example column 4 lines 17-27 of Byrne.

Referring to claim 21, Byrne as modified by Tsao et al. and Schuurink et al. does not disclose the base layer 2 to 3 inches thick and the wear layer is 3/8 to ½ inch thick. However, these limitations are found through experimentation and it would have been obvious to one of ordinary skill in the art to take the device of Byrne as modified by Tsao et al. and Schuurink et al. and add the base layer being 2-3 inches thick and the wear layer being 3/8-1/2 inch thick, so as to allow for the device to be of sufficient size to be durable for outdoor use while not being too bulky for transport.

(10) Response to Argument

Regarding claim 1, the Byrne reference US 5396731 discloses a tree skirt having a base layer – at 16, made of rubber and a binder as seen in column 4 lines 53-68 and column 5 lines 1-22, a wear layer – at 15,30,31, made of a rubber – at 15 or a polymer – at 30 – see column 4 lines 53-68 and column 5 lines 1-56, and a binder – as part of item 15 on top of the base layer – at 16 – see figure 8 and column 4 lines 53-68 and column 5 lines 1-22. The Tsao et al. reference US 5678353 discloses a tree skirt having a wear layer – at 1-4 made of EPDM – see for example claim 13 column 10 lines 4-14. Therefore it is deemed that the combination of the Byrne and Tsao et al. references discloses the claimed invention given the motivation to combine the references set forth above in section (9) of this action in that the Byrne reference discloses a tree skirt having a wear layer made of rubber – at 15,31, and the Tsao et al. reference discloses a tree skirt of similar structure and function using a rubber wear layer made of EPDM. Since each of the Byrne and Tsao et al. references disclose devices using rubber layers it is deemed that it is obvious to one of ordinary skill in the art to use the EPDM rubber of Tsao et al. in place of the rubber used in the Byrne device.

Regarding claims 2-3 and 6-9, using the Farley reference US 5730773, appellant relies upon the arguments to parent claim 1, and therefore see the response to these arguments above in this section (10) of this action.

Regarding claims 10 and 12/10, the prior art references do not disclose the mixture of granules and buffings or peelings is 70% granules and 30% peelings or buffings. However, as seen in appellant's disclosure the ratio of granules to peeling or buffings is not critical to the operation of the invention in view of other ratios of granules to peelings or buffings and it is

deemed that the device of Byrne as modified by Tsao et al. and Farley would perform equally as well with the ratio of granules to peelings or buffings being 70% granules to 30% peeling or buffings in that the Byrne reference discloses the use of granules and buffings in the tree skirt as seen in column 4 lines 17-27.

Regarding claims 11 and 12/11, the prior art references do not disclose the mixture of granules and buffings or peelings is 50% granules and 50% peelings or buffings. However, as seen in appellant's disclosure the ratio of granules to peeling or buffings is not critical to the operation of the invention in view of other ratios of granules to peelings or buffings and it is deemed that the device of Byrne as modified by Tsao et al. and Farley would perform equally as well with the ratio of granules to peelings or buffings being 50% granules to 50% peeling or buffings in that the Byrne reference discloses the use of granules and buffings in the tree skirt as seen in column 4 lines 17-27.

Regarding claims 13 and 14, the prior art references do not specifically disclose the thickness of the base layer of the tree skirts being 1.5 to 3.5 inches thick or 2 inches thick. However, as seen in appellant's disclosure the thickness of the base layer is not critical to the operation of the invention in view of other values for the thickness of the base layer and it is deemed that the device of Byrne as modified by Tsao et al. and Farley would perform equally as well with the thickness of the base layer being 1.5 to 3.5 inches or 2.0 inches in that as seen in figure 8 of Byrne and figure 1a of Tsao et al., the tree skirt is shown as being relatively thin in view of the other dimensions of the tree skirt, but having substantial thickness and therefore the base layer is capable of being between 1.5 to 3.5 inches or 2.0 inches.

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Regarding claim 4, the Stella references US 4882386 discloses the use isocyanate polyurethane in EPDM material applications as seen in column 9 lines 19-26 and column 11 lines 23-30.

Regarding claim 5, the prior art references do not disclose the ratio of the first binder to butadiene rubber in the base layer is 16% by weight. However, appellant's disclosure does not state that the ratio of the binder to the rubber is critical to the operation of the invention in view of other values for this ratio and it is deemed that the device of Byrne as modified by Tsao et al. and Farley would perform equally as well with ratio of binder to rubber being 16% by weight in that the Byrne reference discloses the use of mixtures of binder and rubber as seen in column 4 lines 53-68 and column 5 lines 1-22.

Regarding claims 15-18, appellant relies upon the arguments to parent claim 1 and therefore see the response to these arguments above in this section (10) of this action.

Regarding claims 19-21, the Schuurink et al. reference US 4205102 discloses the use of aliphatic diisocyanate as seen in claim 3 in column 6 lines 9-10. Further, it is deemed that the combination of the Schuurink et al. with the Byrne reference as modified by Tsao et al. reference is deemed proper in that the aliphatic diisocyanate binder is used with rubber materials such as the materials used in the Byrne and Tsao et al. reference. Therefore, it is deemed that the aliphatic diisocyanate binder used in the Schuurink et al. reference can be used in other rubber material applications such as that of Byrne and Tsao et al. given the motivation to combine the references set forth above in section (9) of this action.

(11) Related Proceeding(s) Appendix

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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

David Parsley Sa R

Conferees:

Peter Poon

Jeffrey Gellner